

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**(Case No. 13064US02)**

In the Application of:	)	
	)	
Joseph S. Bowers, Jr. <i>et al.</i>	)	<b>Express Mailing No.: EL 929183021 US</b>
	)	
Serial No.:	)	
	)	
Filed: August 5, 2003	)	
	)	
For: "Methods To Stabilize A Viscosity-	)	
Unstable Aqueous Dispersion Of	)	
Carbon"	)	

**TRANSMITTAL OF  
INFORMATION DISCLOSURE STATEMENT**

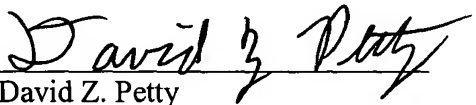
Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Enclosed are the following:

- \* A completed PTO form 1449 which has 2 pages.
- \* A copy of the International Search Report for the PCT/International application, No. PCT/US02/23460, corresponding to the above application.

Respectfully submitted,



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August 5, 2003

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FORM PTO-1449	SERIAL NO.	CASE NO. 13064US02
<b>LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT</b>	FILING DATE August 5, 2003	GROUP ART UNIT
(use several sheets if necessary)	APPLICANT(S): Bowers, Jr. et al.	

**REFERENCE DESIGNATION U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS/ SUBCLASS	FILING DATE
	A1	4,718,993	01/12/88	Cupta et al.		
	A2	5,139,642	08/18/92	Randolph et al.		
	A3	5,641,689	06/24/97	Jacob Van Doorn et al.		
	A4	5,718,746	02/17/98	Nagasawa et al.		
	A5	5,476,580	12/19/95	Thorn et al.		
	A6	6,125,613	10/03/00	Eberhardt, Jr. et al.		
	A7	4,602,473	07/29/86	Hayashi et al.		
	A8	3,152,996	10/13/64	Forreseter		
	A9	3,398,009	08/1968	Deery		
	A10	4,435,378	03/1984	Reck et al.		
	A11	5,609,671	03/1997	Nagasawa		
	A12	5,846,307	12/1998	Nagasawa et al.		
	A13	6,099,632	08/2000	Nagasawa et al.		
	A14	4,622,107	11/11/86	Piano		
	A15	4,622,108	11/11/86	Polakovic et al.		
	A16	4,631,117	12/23/86	Minten et al.		
	A17	4,874,477	10/17/89	Pendleton		
	A18	4,897,164	01/30/90	Piano et al.		
	A19	4,964,959	10/23/90	Nelson et al.		
	A20	5,030,367	07/09/91	Tanaka et al.		
	A21	5,389,270	02/14/95	Thorn et al.		
	A22	5,476,580	12/19/95	Thorn et al.		
	A23	5,536,386	07/16/96	Ferrier et al.		
	A24	5,632,927	05/27/97	Ferrier et al.		
	A25	5,690,805	11/25/97	Thorn et al.		
	A26	5,725,807	03/10/98	Thorn et al.		
	A27	5,759,378	06/02/98	Ferrier et al.		
	A28	5,759,728	06/02/98	Hagi et al.		
	A29	5,800,739	09/01/98	Sonnenberg et al.		
	A30	6,037,020	03/14/00	Garlough et al.		
	A31	6,171,382	01/09/01	Stubbe et al.		
	A32	6,171,468	01/09/01	Thorn et al.		

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS/ SUBCLASS	TRANSLATION YES	NO
	A14						
	A15						
	A16						
	A17						
	A18						

FORM PTO-1449	SERIAL NO.	CASE NO. 13064US02
<b>LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT</b>	FILING DATE August 5, 2003	GROUP ART UNIT
(use several sheets if necessary)	APPLICANT(S): Bowers, Jr. et al.	

EXAMINER INITIAL	OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)	
	A19	
	A20	
	A21	
	A22	
	A23	
	A24	

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 13064WO01	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US02/23460	International filing date (day/month/year) 24 JULY 2002	(Earliest) Priority Date (day/month/year) 26 JULY 2001
Applicant ELECTROCHEMICALS, INC.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 7 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (See Box II).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No. \_\_\_\_\_

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/23460

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐

The additional search fees were accompanied by the applicant's protest.

☐

No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/23460

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

## INTERNATIONAL SEARCH REPORT

International application No.

T/US02/23460

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) :B01F 3/12; B01J 19/00; B65B 31/02; C09C 1/44 1/48

US CL :106/472, 478; 516/38; 53/432; 422/41

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 106/31.92, 472, 478; 516/38; 53/432; 422/41

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,718,746 A (NAGASAWA et al) 17 February 1998 (17.02.98), example 2; and column 5, lines 31-41.	31
X --- Y	US 5,476,580 A (THORN et al) 19 December 1995 (19.12.95), examples 4 and 13; and column 5, line 54- column 6, line 39.	1-9, 17 ----- 23-28
Y	US 6,125,613 A (EBERHARDT, JR. et al) 03 October 2000 (03.10.00), column 2, lines 23-28; and column 16, lines 20-29.	23-25
Y	US 4,602,473 A (HAYASHI et al) 29 July 1986 (29.07.86), column 1, lines 7-13.	23, 24, 26-28
A	US 3,152,996 A (FORRESETER) 13 October 1964 (13.10.64), entire document.	1-31

☒ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Z" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

09 OCTOBER 2002

Date of mailing of the international search report

02 JAN 2003

 Name and mailing address of the ISA/US  
 Commissioner of Patents and Trademarks  
 Box PCT  
 Washington, D.C. 20231

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Authorized officer

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Telephone No. (703) 308-0661

 Jean Proctor  
 Paralegal Specialist

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/23460

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,718,993 A (CUPTA et al) 12 January 1988 (12.01.88), entire document.	1-31
A	US 5,139,642 A (RANDOLPH et al) 18 August 1992 (18.08.92), entire document.	1-31
A	US 5,641,689 A (JACOB VAN DOORN et al) 24 June 1997 (24.06.97), entire document.	1-31



INTERNATIONAL SEARCH REPORT  
Information on patent family members

International application No.  
PCT/US02/23460

INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US02/23460